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**(54) LOW LOSS FERRITE SINTERED COMPACT HAVING HIGHLY SATURATED  
MAGNETIC FLUX DENSITY AND CHOKE COIL**

(57)Abstract:

**PROBLEM TO BE SOLVED:** To obtain a low loss sintered compact having a high saturated magnetic flux density at a high temperature by composing main ingredients of a specified content of iron oxide, a specified content of zinc oxide and the rest of manganese oxide.

**SOLUTION:** This sintered compact has  $\geq 450$  T saturated magnetic flux density measured at 100° C and 100 A/m magnetic field, has  $\leq 1,500$  kW/m<sup>3</sup> minimum core loss measured at 50 kHz and 150 mT and has  $\leq 15\%$  rate of change between the saturated magnetic flux density at 20° C and the one at 100° C. The sintered

compact comprises 60–70 mol% iron oxide, 0–20 mol% zinc oxide (with proviso that the content is not zero) and the rest of manganese oxide as main ingredients and is obtained by calcinating the mixture at  $\geq 1,150^{\circ}\text{C}$  and  $\leq 1\%$  oxygen concentration in a holder for calcination.

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